WHAT IS CLAIMED IS:

1. A method of detecting or identifying an analyte of interest in a sample, comprising:

(i) contacting the sample containing the analyte with one or more affinity molecule to form a complex of the analyte and the one or more affinity molecule, wherein the one or more affinity molecule has an affinity against the analyte;

(ii) separating the complex and any unbound affinity molecule in the presence of a charged polymer by using a separation channel in a microfluidic device comprising at least one separation channel having at least one microscale dimension of between about 0.1 and 500 microns; and

(iii) detecting the complex to identify the presence of the analyte or to determine an amount of the analyte in the sample, wherein the charged polymer reduces interference with detecting.

2. The method of claim 1, wherein the charged polymer is a polyanionic polymer or a polycationic polymer.

3. The method of claim 2, wherein the charged polymer is a polyanionic polymer selected from the group consisting of polysaccharides, polynucleotides, polypeptides, synthetic macromolecular compounds, ceramics and a complex thereof.

4. The method of claim 1, wherein the charged polymer is a polyanionic polymer selected from the group consisting of poly-dIdC, heparin sulfate, dextran sulfate, polytungstic acid, polyanethole sulfonic acid, polyvinyl sulfate, polyacrylate, chondroitin sulfate, plasmid DNA, calf thymus DNA, salmon sperm DNA, DNA coupled to cellulose, glass particles, colloidal glass, and glass milk.

5. The method of claim 1, wherein the charged polymer is a polycationic polymer selected from the group consisting of polyallylamines, polylysine, polyhistidine, chitosan, protamine, polyethyleneimine and polyarginine.

6. The method of claim 1, wherein the charged polymer comprises a net negative charge.

7. The method of claim 1, wherein the charged polymer comprises a net positive charge.

8. The method of claim 6, wherein the charged polymer comprises heparin sulfate.

9. The method of claim 1, wherein at least one of the one or more affinity molecules is labeled with a detectable marker.

10. The method of claim 1, wherein at least one of the one or more affinity molecules is bound to a charged carrier molecule to form a conjugate of the affinity molecule and the charged carrier molecule, and wherein the charged carrier molecule causes a change in a separation property of the analyte by binding to the analyte through the one or more affinity molecule to form a complex of the analyte, the affinity molecule and the charged carrier molecule.

11. The method of claim 1 or 10, wherein the affinity molecule is one which binds to the analyte by a protein-protein interaction, a protein-chemical interaction or a chemical-chemical interaction.

12. The method of claim 1 or 10, wherein the affinity molecule is one which binds to the analyte by an antigen-antibody interaction, a sugar chain-lectin interaction, an enzyme-inhibitor interaction, a protein-peptide chain interaction, a chromosome or nucleotide chain-nucleotide chain interaction, a nucleotide-ligand interaction or a receptor-ligand interaction.

13. The method of claim 1 or 10, wherein the affinity molecule is selected from the group consisting of an antibody, an Fab, $F(ab')_2$ or Fab' fragment of an antibody, an antibody variable region, a lection, avidin, a receptor, an affinity peptide, an aptamer, and a DNA binding protein.

14. The method of claim 10, wherein the charged carrier molecule is an anionic molecule or a cationic molecule.

15. The method of claim 14, wherein the charged carrier molecule is one having the same net charge as the charged polymer.

16. The method of claim 14, wherein the charged carrier molecule is an anionic molecule comprising a nucleotide chain or a sulfonated polypeptide.

17. The method of claim 10, wherein the charged carrier molecule comprises DNA, RNA, a cationic polymer, or a sulfonated polypeptide

18. The method of claim 17, wherein the charged carrier molecule comprises DNA comprising one or more synthetic sequences.

19. The method of claim 18, wherein the one or more synthetic sequences comprise one or more nucleotide analogs comprising a linker group or a linker reactive group.

20. The method of claim 19, wherein the linker group or linker reactive group comprises an amino group, a thiol, a carboxyl group, an imidazol group, or a succinimide group.

21. The method of claim 20, further comprising covalently bonding a detectable marker to the linker group or linker reactive group.

22. The method of claim 1, wherein at least one affinity molecules is labeled with a detectable marker.

23. The method of claim 10, wherein at least one conjugate or at least one affinity molecule which does not form a conjugate is labeled with a detectable marker.

24. The method of claim 10, wherein at least one affinity molecule and the charged carrier molecule forming the conjugate is labeled by a detectable marker.

25. The method of claim 10, wherein the charged carrier molecule in the conjugate is labeled by a detectable marker.

26. The method of claim 10, wherein the affinity molecule in the conjugate is labeled by a detectable marker.

27. The method of claim 9, 21, 22, 23, 24, 25 or 26, wherein the detectable marker is a fluorescent dye, a luminescent dye, a phosphorescent dye, a fluorescent protein, a luminescent protein or particle, a radioactive tracer, a chemiluminescent compound, a redox mediator, an electrogenic compound, an enzyme, a colloidal gold particle, or a silver particle.

28. The method of claim 10, wherein separating comprises electrophoretic separation of the conjugate or the complex through a separation media in the separation channel.

29. The method of claim 28, wherein the separation media comprises a size exclusion resin, a polyacrylamide gel, polyethylene glycol (PEG), polyethyleneoxide (PEO), a co-polymer of sucrose and epichlorohydrin, polyvinylpyrrolidone (PVP), hydroxyethylcellulose (HEC), poly-N,N-dimethylacrylamide (pDMA),or an agarose gel.

30. The method of claim 28, wherein the separation media further comprises the charged polymer.

31. The method of claim 30, wherein the charged polymer is present in the separation media at a concentration of between about 0.01 to 5%.

32. The method of claim 30, wherein the charged polymer is present in the separation media at a concentration of between about 0.05 to 2%.

33. The method of claim 28, further comprising introducing a charged polymer into a buffer which comprises the sample.

34. The method of claim 33, wherein the charged polymer is present in the sample buffer at a concentration of between about 0.001 to 2 %.

35. The method of claim 1, wherein the separation channel has at least one cross-sectional microscale dimension of between about 0.1 and 200 microns.

36. The method of claim 1, wherein:

step (i) comprises contacting the sample containing the analyte with the one or more affinity molecule, at least one of which is labeled by a detectable marker, to form a complex containing the analyte and the one or more affinity molecule labeled by the detectable marker;

step (ii) comprises separating the complex from any free affinity molecule labeled by the detectable marker which is not involved in forming the complex in a separation channel of a microfluidic device in the presence of a charged polymer;

step (iii) comprises:

(a) measuring an amount of the separated complex or detecting a presence of the separated complex; and

(b) determining an amount of the analyte in the sample on the basis of the measured amount or identifying a presence of the analyte in the sample on the basis of the detected presence; and

wherein the affinity molecule has a property capable of binding to the analyte, and wherein when two or more affinity molecules are used, each affinity molecule has a property capable of binding with the analyte at a different site on the analyte from every other affinity molecule.

37. The method of claim 10, wherein:

step (i) comprises contacting the sample containing the analyte with one or more conjugates of an affinity molecule and a charged carrier molecule, wherein at least one of the one or more conjugates is labeled by a detectable marker, to form a complex containing the analyte and the conjugate labeled by the detectable marker;

step (ii) comprises separating the complex from the at least one conjugate labeled by the detectable marker which is not involved in forming the complex in a separation channel of a microfluidic device in the presence of a charged polymer;

step (iii) comprises:

(a) measuring an amount of the separated complex or detecting a presence of the separated complex; and

(b) determining an amount of the analyte in the sample on the basis of the measured amount or identifying a presence of the analyte in the sample on the basis of the detected presence; and

wherein the affinity molecule in the conjugate has a property capable of binding to the analyte, and when two or more conjugates are used, each affinity molecule in the conjugate has a property capable of binding with the analyte at a different site on the analyte from every other affinity molecule, and the charged carrier molecule has a property capable of causing a change in a separation property of the analyte by binding to the analyte through the affinity molecule to form a complex of the analyte, the affinity molecule and the charged carrier molecule.

38. The method of claim 10, wherein:

step (i) comprises contacting the sample containing the analyte with one or more affinity molecules and one or more conjugates of an affinity molecule and a charged carrier molecule, wherein either at least one of the affinity molecule or at least one of the conjugate is labeled by a detectable marker, to form a complex containing the analyte, the affinity molecule and the conjugate;

step (ii) comprises separating the complex from any free affinity molecule labeled by the detectable marker or the conjugate labeled by the detectable marker which is not involved in forming the complex in a separation channel of a microfluidic device in the presence of a charged polymer;

step (iii) comprises:

(a) measuring an amount of the separated complex or detecting a presence of the separated complex; and

(b) determining an amount of the analyte in the sample on the basis of the measured amount or identifying a presence of the analyte in the sample on the basis of the detected presence; and

wherein the affinity molecule and the affinity molecule in the conjugate have a property capable of binding to the analyte, and each affinity molecule has a property capable of binding with the analyte at a different site on the analyte from every other affinity molecule, and the charged carrier molecule has a property capable of causing a change in a separation property of the analyte by binding to the analyte through the affinity molecule to form a complex of the analyte, the affinity molecule and the charged carrier molecule.

39. A method for determining an analyte in a sample, which comprises:

(i) contacting the sample containing the analyte with the analyte labeled by a detectable marker or an analogue of the analyte labeled by a detectable marker and one or more affinity molecule to form a first complex of the analyte in the sample and the

affinity molecule and a second complex of the labeled analyte or the labeled analogue and the affinity molecule;

(ii) separating the second complex from any free labeled analyte or the free labeled analogue which is not involved in forming the second complex in a separation channel of a microfluidic device in the presence of a charged polymer;

(iii) measuring an amount of the separated second complex or an amount of the separated free labeled analyte or the separated free labeled analogue; and

(iv) determining an amount of the analyte in the sample on the basis of the measured amount;

wherein the affinity molecule has a property capable of binding to the analyte in the sample and the labeled analyte or a property capable of binding to the analyte in the sample and the labeled analogue, and wherein when two or more affinity molecules are used, each affinity molecule has a property capable of binding with the analyte in the sample and the labeled analyte at a different site on the analyte in the sample and a different site on the labeled analyte from every other affinity molecule or each affinity molecule has a property capable of binding with the analyte in the sample and the labeled analogue at a different site on the analyte in the sample and a different site on the labeled analogue from every other affinity molecule.

40. The method of claim 39, wherein:

step (i) comprises contacting the sample containing the analyte with the analyte labeled by a detectable marker or an analogue of the analyte labeled by a detectable marker and one or more conjugate of an affinity molecule and a charged carrier molecule to form a first complex of the analyte in the sample and the conjugate and a second complex of the labeled analyte or the labeled analogue and the conjugate;

step (ii) comprises separating the second complex from any free labeled analyte or free labeled analogue which is not involved in forming the second complex in a separation channel of a microfluidic device in the presence of a charged polymer;

step (iii) comprises measuring an amount of the separated second complex or an amount of the separated free labeled analyte or the separated free labeled analogue; and

step (iv) comprises determining an amount of the analyte in the sample on the basis of the measured amount; and

wherein the affinity molecule in the conjugate has a property capable of binding to the analyte in the sample and the labeled analyte or the analyte in the sample and the labeled analogue, and when two or more conjugates are used, each affinity molecule in the conjugate has

a property capable of binding with the analyte in the sample and the labeled analyte at a different site on the analyte in the sample and a different site on the labeled analyte from every other affinity molecule or each affinity molecule in the conjugate has a property capable of binding with the analyte in the sample and the labeled analogue at a different site on the analyte in the sample and a different site on the labeled analogue from every other affinity molecule, and wherein the charged carrier molecule has a property capable of causing a change in a separation property of the labeled analyte or the labeled analogue by binding to the labeled analyte or the labeled analogue through the affinity molecule to form a complex of the labeled analyte or the labeled analogue, the affinity molecule and the charged carrier molecule.

41. The method of claim 39, wherein:

step (i) comprises contacting the sample containing the analyte with the analyte labeled by a detectable marker or an analogue of the analyte labeled by a detectable marker, one or more affinity molecule and one or more conjugate of an affinity molecule and a charged carrier molecule to form a first complex of the analyte in the sample, the affinity molecule and the conjugate and a second complex of the labeled analyte or the labeled analogue, the affinity molecule and the conjugate;

step (ii) comprises separating the second complex from any free labeled analyte or the labeled analogue which is not involved in forming the second complex in a separation channel of a microfluidic device in the presence of a charged polymer;

step (iii) comprises measuring an amount of the separated second complex or an amount of the separated free labeled analyte or the separated free labeled analogue;

step (iv) comprises determining an amount of the analyte in the sample on the basis of the measured amount; and

wherein the affinity molecule and the affinity molecule in the conjugate have a property capable of binding to the analyte in the sample and the labeled analyte or the analyte in the sample and the labeled analogue, and each affinity molecule has a property capable of binding with the analyte in the sample and the labeled analyte at the different site on the analyte in the sample and a different site on the labeled analyte from every other affinity molecule or each affinity molecule has a property capable of binding with the analyte in the sample and the labeled analogue at a different site on each of the analyte in the sample and a different site on the labeled analogue from every other affinity molecule, and wherein the charged carrier molecule has a property capable of causing a change in a separation property of the labeled analyte or the labeled analogue by binding to the labeled analyte or the labeled analogue through the affinity

molecule to form a complex of the labeled analyte or the labeled analogue, the affinity molecule and the charged carrier molecule.

42. A method for determining an analyte in a sample, which comprises:

(i) contacting the sample containing the analyte with the analyte bound to a charged carrier molecule or an analogue of the analyte bound to a charged carrier molecule and one or more affinity molecule labeled by a detectable marker to form a first complex of the analyte bound to the charged carrier molecule or the analogue bound to a charged carrier molecule and the labeled affinity molecule and a second complex of the analyte in the sample and the labeled affinity molecule;

(ii) separating the first complex from any second complex in a separation channel of a microfluidic device in the presence of a charged polymer;

(iii) measuring an amount of the separated first complex or an amount of the second complex;

(iv) determining an amount of the analyte in the sample on the basis of the measured amount; and

wherein the affinity molecule has a property capable of binding to the analyte in the sample and the analyte bound to the charged carrier molecule or the analyte in the sample and the analogue bound to the charged carrier molecule, and wherein when two or more affinity molecules are used, each affinity molecule has a property capable of binding with the analyte in the sample and the analyte bound to the charged carrier molecule at a different site on the analyte in the sample and a different site on the analyte bound to the charged carrier molecule from every other affinity molecule or each affinity molecule has a property capable of binding with the analyte in the sample and the analogue bound to the charged carrier molecule at a different site on the analyte in the sample and a different site on the analogue bound to the charged carrier molecule from every other affinity molecule, and wherein the charged carrier molecule has a property capable of causing a change in a separation property of the first complex by binding to the analyte or the analogue to form a complex of the analyte, the affinity molecule and the charged carrier molecule.

43. The method of claim 1, wherein the sample comprises a serum, a plasma, a whole blood, a tissue extract, a cell extract, a nuclear extract, a culture media, a microbial culture extract, members of a molecular library, a clinical sample, a sputum specimen, a stool specimen,

a cerebral spinal fluid, a urine sample, a uro-genital swab, a throat swab, or an environmental sample.

44. The method of claim 1, wherein the analyte comprises AFP, hCG, TSH, FSH, LH, interleukin, Fas ligand, CA19-9, CA125, PSA, HBsAg, anti-HIV antibody, or T4.

45. A composition for separating a free conjugate of a charged carrier molecule and an affinity molecule, and a complex of an analyte in a sample and the conjugate, wherein the composition comprises a separation media and a charged polymer.

46. The composition of claim 45, wherein the charged polymer is a polyanionic polymer selected from the group consisting of polysaccharides, polynucleotides, polypeptides, synthetic macromolecular compounds, ceramics and a complex thereof.

47. The composition of claim 45, wherein the charged polymer is a polyanionic polymer selected from the group consisting of poly-dIdC, heparin sulfate, dextran sulfate, polytungstic acid, polyanethole sulfonic acid, polyvinyl sulfate, polyacrylate, chondroitin sulfate, plasmid DNA, calf thymus DNA, salmon sperm DNA, DNA coupled to cellulose, glass particles, colloidal glass, and glass milk.

48. The composition of claim 47, wherein the charged polymer is heparin sulfate.

49. The composition of claim 45, wherein the separation media comprises a size exclusion resin, a polyacrylamide gel, polyethylene glycol (PEG), polyethyleneoxide (PEO), a co-polymer of sucrose and epichlorohydrin, polyvinylpyrrolidone (PVP), hydroxyethylcellulose (HEC), poly-N,N-dimethylacrylamide (pDMA),or an agarose gel.

50. The composition of claim 48, wherein heparin sulfate is present in the separation media at a concentration of between about 0.01 to 5%.

51. A method of concentrating an analyte of interest in a sample, comprising:

(i) contacting the sample containing the analyte with one or more of a conjugate of an affinity molecule and a charged carrier molecule to form a complex of the analyte and the conjugate;

(ii) concentrating the complex by using a concentration channel in a microfluidic device comprising at least one concentration channel having at least one microscale dimension of between about 0.1 and 500 microns; and

wherein the charged carrier molecule causes a change in a migration property of the analyte by binding to the analyte through the affinity molecule to form a complex of the analyte, the affinity molecule and the charged carrier molecule.

52. The method of claim 51, wherein the complex is migrated to a region where the concentration of a noise constituent in the sample is lower or zero and is concentrated there.

53. The method of claim 51, wherein contacting the sample containing the analyte with one or more conjugate of an affinity molecule and a charged carrier molecule to form a complex of the analyte and the conjugate is conducted in a microchannel fluidically connected to the concentration channel having at least one microscale dimension of between about 0.1 and 500 microns.

54. The method of claim 51, wherein concentrating the complex is conducted by using a buffer in the concentration channel, wherein the buffer has a property whereby the electrophoretic mobility of the complex in the buffer in the concentration channel is slower than that in a solution which contains the complex being applied to the concentration step (ii).

55. The method of claim 51, wherein concentrating the complex is conducted by utilizing the difference in an electrophoretic mobility between the complex and the noise constituents on the basis of charge of the charged carrier molecule.

56. The method of claim 51, wherein concentrating the complex is conducted by utilizing the difference in an adsorption property between the complex and the noise constituents on the basis of charge of the charged carrier molecule.

57. The method of claim 51, wherein concentrating the complex is conducted according to a concentration method selected from the group consisting of field amplification sample stacking (FASS), field amplification sample injection (FASI), isotachophoresis (ITP), isoelectric focusing (IF) and solid phase extraction (SPE).

58. The method of claim 51, wherein concentrating the complex is conducted according to a concentration method selected from the group consisting of field amplification sample stacking (FASS) and isotachophoresis (ITP).

59. The method of claim 51, wherein the charged carrier molecule is an anionic molecule or a cationic molecule.

60. The method of claim 59, wherein the charged carrier molecule is an anionic molecule comprising a nucleotide chain or a sulfonated polypeptide.

61. The method of claim 51, wherein the charged carrier molecule comprises DNA, RNA, a cationic polymer, or a sulfonated polypeptide

62. The method of claim 61, wherein charged carrier molecule comprises DNA comprising one or more synthetic sequences.

63. The method of claim 62, wherein the one or more synthetic sequences comprise one or more nucleotide analogs comprising a linker group or linker reactive group.

64. The method of claim 63, wherein the linker group or linker reactive group comprises an amino group, a thiol, a carboxyl group, an imidazol group, or a succinimide group.

65. The method of claim 64, further comprising covalently bonding a detectable marker to the linker group or the linker reactive group.

66 The method of claim 62, wherein the one or more synthetic sequence consists of one selected from a phosphorothioate analog of nucleotide, a nucleotide that contains a methylene group in the place of the oxygen in the ribose ring, or a nucleotide which has a replacement of the 2'-sugar deoxy substituent with 2'-fluoro, 2'-O-methyl, 2-O-alkoxyl- and 2'-O-allyl modification

67. The method of claim 51, wherein the contacting step further comprises contacting the sample with one or more affinity molecule to form a complex of the analyte, the conjugate and the affinity molecule.

68. The method of claim 51 or 67, wherein the affinity molecule is one which binds to the analyte by a protein-protein interaction, a protein-chemical interaction or a chemical-chemical interaction.

69. The method of claim 51 or 67, wherein the affinity molecule is one which binds to the analyte by an antigen-antibody interaction, a sugar chain-lectin interaction, an enzyme-inhibitor interaction, a protein-peptide chain interaction, a chromosome or nucleotide chain-nucleotide chain interaction, a nucleotide-ligand interaction or a receptor-ligand interaction.

70. The method of claim 51 or 67, wherein the affinity molecule is selected from the group consisting of an antibody, an Fab, $F(ab')_2$ or Fab' fragment of an antibody, an antibody variable region, a lection, avidin, a receptor, an affinity peptide, an aptamer, and a DNA binding protein.

71. The method of claim 67, wherein at least one conjugate or at least one affinity molecule which does not form a conjugate is labeled with a detectable marker.

72. The method of claim 51, wherein at least one of the affinity molecule and the charged carrier molecule forming the conjugate is labeled by a detectable marker.

73. The method of claim 51, wherein the charged carrier molecule in the conjugate is labeled by a detectable marker.

74. The method of claim 51, wherein the affinity molecule in the conjugate is labeled by a detectable marker.

75. The method of claim 67, 71, 72, 73 or 74, wherein the detectable marker is a fluorescent dye, a luminescent dye, a phosphorescent dye, a fluorescent protein, a luminescent protein or particle, a radioactive tracer, a chemiluminescent compound, a redox mediator, an electrogenic compound, an enzyme, a colloidal gold particle, or a silver particle.

76. The method of claim 51 or 67, wherein the contacting step and/or the concentrating step is conducted in the presence of a charged polymer.

77. The method of claim 76, wherein the charged polymer is a polyanionic polymer or a polycationic polymer.

78. The method of claim 77, wherein the charged polymer is a polyanionic polymer selected from the group consisting of polysaccharides, polynucleotides, polypeptides, synthetic macromolecular compounds, ceramics and complexes thereof.

79. The method of claim 76, wherein the charged polymer is a polyanion selected from the group consisting of poly-dIdC, heparin sulfate, dextran sulfate, polytungstic acid, polyanethole sulfonic acid, polyvinyl sulfate, polyacrylate, chondroitin sulfate, plasmid DNA, calf thymus DNA, salmon sperm DNA, DNA coupled to cellulose, glass particles, colloidal glass, and glass milk.

80. The method of claim 76, wherein the charged polymer is a polycation selected from the group consisting of polyallylamine, polylysine, polyhistidine, chitosan, protamine, polyethyleneimine and polyarginine.

81. The method of claim 76, wherein the charged polymer comprises a net negative charge.

82. The method of claim 76, wherein the charged polymer comprises a net positive charge.

83. The method of claim 76, wherein the charged carrier molecule and the charged polymer are the same net charge.

84. The method of claim 81, wherein the charged polymer comprises heparin sulfate.

85. The method of claim 51 or 67, wherein the concentrating step comprises electrophoretic concentration of the conjugate or the complex through a concentration media in the concentration channel.

86. The method of claim 85, wherein the concentration media comprises a size exclusion resin, a polyacrylamide gel, polyethylene glycol (PEG), polyethyleneoxide (PEO), a co-polymer of sucrose and epichlorohydrin, polyvinylpyrrolidone (PVP), hydroxyethylcellulose (HEC), poly-N,N-dimethylacrylamide (pDMA), or an agarose gel.

87. The method of claim 85, wherein the concentration media further comprises a charged polymer.

88. The method of claim 87, wherein the charged polymer is present in the concentration media at a concentration of between about 0.01 to 5%.

89. The method of claim 87, wherein the charged polymer is present in the concentration media at a concentration of between about 0.05 to 2%.

90. The method of claim 85, further comprising introducing a charged polymer into a buffer which comprises the sample.

91. The method of claim 90, wherein the charged polymer comprises heparin sulfate which is present in the sample buffer at a concentration of between about 0.001 to 2 %.

92. The method of claim 51, wherein the concentration channel has at least one cross-sectional microscale dimension of between about 0.1 and 200 microns.

93. A method of detecting or identifying an analyte of interest in a sample, comprising:

(i) contacting the sample containing the analyte with one or more a conjugate of an affinity molecule and a charged carrier molecule to form a complex of the analyte and the conjugate;

(ii) concentrating the complex by using a concentration channel in a microfluidic device comprising at least one concentration channel having at least one microscale dimension of between about 0.1 and 500 microns;

(iii) separating the complex and any unbound conjugate by using a separation channel in a microfluidic device comprising at least one separation channel having at least one microscale dimension of between about 0.1 and 500 microns and comprising a charged polymer in the separation channel;

(iv) detecting the complex to identify the presence of the analyte or to determine an amount of the analyte in the sample, wherein the contacting, concentrating and/or separating step is conducted in the presence of a charged polymer which reduces interference with detecting; and

wherein the charged carrier molecule causes a change in a migration property of the analyte by binding to the analyte through the affinity molecule to form a complex of the analyte, the affinity molecule and the charged carrier molecule.